Technical Report 2016
http://dspace.library.iitb.ac.in/jspui/handle/100/18425

Incentivising ATM-cash and cheques over electronic transactions - A policy gap

Ashish Das

Department of Mathematics
Indian Institute of Technology Bombay
Mumbai-400076, India

January 2016

Indian Institute of Technology Bombay
Powai, Mumbai-400 076, India

Contents

Incentivising ATM-cash and cheques over electronic transactions - A policy gap*

Ashish Das[1]
Department of Mathematics, Indian Institute of Technology Bombay, Mumbai-400076

January 26, 2016

Executive Summary

The country is moving through a phase of dynamic changes in the payment system. This is primarily due to technology coming into play to revolutionise the payment space. Reserve Bank of India (RBI) and the government both have realised the benefits and importance to venture into promoting the electronic payment system of the country to bring in ease, efficiency and accountability. RBI has added a new league of banks called payment banks while the government has planned to incentivise electronic payments in a big way.

Other than maintaining brick and mortar branches, an important head of operational expense for banks pertains to management of cash and cheques. This is a cost not only for banks but also for the government and ultimately through various forms for the economy in general.

There is a high cost of cash to the economy that is not explicitly stated. These include both direct cost (printing/transporting notes, weeding out soiled notes, combating counterfeiting by several means including periodically introducing new series of currency notes and withdrawing existing ones, etc.) and indirect cost (loss of tax revenue, creation/prevalence of black money, etc.). Moreover, cash facilitates crime and above all cash is not 'swachcha' (imagine the germs that currency notes carry when we receive balance cash from a fishmonger, a vegetable vendor, an auto-riksha driver or even from an ATM). Moving towards cashless economy is the appropriate way to address these ills. People should make cashless transactions a habit and RBI should impart this important message of financial/depositor education through Depositor Education and Awareness Fund (DEAF).

The digital payments infrastructure already in place can give boost to payments made digitally provided the same convenience and acceptability as that for cash can be attained by policy reorientation. At present RBI's policies and bank practices are not oriented towards explicitly creating an ecosystem which gives the end users (customers) freedom of choice between payment modes; where there is no imbalance imposed by anomalous incentive/disincentive

* The views expressed are those of the author and not necessarily of the institution to which he belongs.

[1] Dr. Ashish Das is a Professor of Statistics with the Indian Institute of Technology Bombay. E-mail: ashish@math.iitb.ac.in

structures; where cash/paper transactions are not incentivised over cashless/paperless transactions; and where payments which are cheaper for banks to execute are priced favourably over payments which are expensive for banks to execute. In this regard, the policy makers should focus to answer the following question:

> *"Is it not possible to provide freedom of choice to customers by allowing them few free debit transactions each month and letting them pick economical/efficient/convenient mobile/computer/net based IMPS/NEFT alternatives over the cost-intensive/less-efficient ATM-cash/cheque ones?"*

It is prudent to migrate to measures that incentivise cashless/paperless transactions since they are more economical, beneficial and efficient than cash/paper transactions. This Report presents a way forward for encouraging the cost effective electronic payments over cash and cheques. It focuses on the incentives and disincentives in the existing payment space and provides rational policy path, for possible implementation by RBI and the government.

Policy recommendations

(A) Without disturbing the present setup significantly and to bring in a balanced incentive/disincentive fee structure, RBI should mandate banks to provide a minimum of 12 free (overall) customer initiated debit transactions in a month and charge beyond that, subject to banks given the freedom to charge a fee on

(i) ATM transactions on other banks' ATM in excess of 5 of which no more than 3 are at metro locations

(ii) ATM transactions in excess of 10

(iii) cheque debits in excess of 2

Beyond free limits, fee for every ATM transaction has a cap of Rs 20; fee for every cheque used has a cap of Rs 3; fee for every IMPS/NEFT (upto Rs 1 lakh) has a cap of Rs 5.

(B) At some point of time, RBI should consider mandating banks to provide a minimum of 12 free (overall) customer initiated debit transactions in a month and charge beyond that, subject to banks given the freedom to charge a fee on

(i) ATM cash debit on other banks' ATM in excess of 3

(ii) ATM cash debit in excess of 5

(iii) cheque debits in excess of 2

Beyond free limits, fee for every ATM cash debit has a cap of Rs 20; fee for every cheque used has a cap of Rs 17; fee for every IMPS/NEFT (upto Rs 1 lakh) has a cap of Rs 5.

Fee structure for non-financial transactions should be arrived at independently.

Due to diverse infrastructural facilities across the country and issues related to net/mobile connectivity and availability of branch facilities, the policies set for rural / semi urban regions could be different from those set for urban / metro regions. For example in semi-urban / rural locations, (ii) could be replaced by (ii') ATM cash debit in excess of 8, etc.

(C) NPCI should strive towards moulding the UPI-App such that

(i) UPI-App is supplied *additionally* by NPCI directly to end users (like NUUP).

(ii) UPI-App is backed by RBI and regulated, if required.

(iii) NPCI acts as a switch to communicate messages directly between the two banks, the payer and the payee.

(iv) UPI-App communicates directly 'between NPCI and Payer' and 'between NPCI and Payee' and transfer funds through IMPS.

(v) A possible revenue model for person to person transactions is

- Pull transaction: pull customer pays Rs 3 to payee-bank of which Rs 1 is interchange earned by payer-bank.
- Push transaction: push customer pays Rs 3 to payer-bank of which Rs 1 is interchange earned by payee-bank.
- The revenue model for merchant transactions could be different.
- NPCI provides the service free for the initial one year and thereafter can fix appropriate revenue generating fee from payer- and payee-banks.

(vi) UPI-App is enabled with a provision to withdraw cash from ATMs without the requirement of a debit card.

(D) The government should consider service tax break for few years on the fees imposed by banks for electronic debits using front-ends like mobile, computers, etc. which moves people away from cash and cheques.

(E) Till RBI migrates to recommendation (A), as an interim measure, one possible way of addressing the lacuna in RBI circular on ATM could be to reword the regulation as under:

“Banks are required to provide a minimum of 10 ATM transactions free provided

(i) No more than a minimum of 8 are at metro locations,

(ii) No more than a minimum of 5 are at other bank’s ATM, and

(iii) No more than a minimum of 3 are at other bank’s ATM at metro location.

Metro locations are m1, m2, m3, m4, m5, m6, etc.

Banks may decide on fees independently, for own and other bank’s ATM usage, subject to a cap of Rs 20.”

The declined transaction due to insufficient balance in the account should be considered a non-financial transaction and should fall with-in the ATM fees regulations.

Acknowledgements

The author thanks few officials in banks, IBA, NPCI and RBI for some fruitful discussions. In the paper all possible care has been taken to project the correct picture using the data gathered. Deviations, if any, are inadvertent.

I. Introduction

Motivation

1.1 The country is moving through a phase of dynamic changes in the payment system. This is primarily due to technology coming into play to revolutionise the payment space. Reserve Bank of India (RBI) and the government both have realised the benefits and importance to venture into promoting the electronic payment system of the country to bring in ease, efficiency and accountability. RBI has added a new league of banks called payment banks while the government has planned to incentivise electronic payments in a big way.

1.2 The country now has the potential to migrate from cheques and cash to mobile and computer based platforms for payments. With a billion banked population following the government's initiative to facilitate opening of bank accounts, efforts should now focus on transiting these bank populace to simplification of money transactions.

1.3 Other than maintaining brick and mortar branches, an important head of operational expense for banks pertains to management of cash and cheques. This is a cost not only for banks but also for the government and ultimately through various forms for the economy in general.

1.4 There is a high cost of cash to the economy that is not explicitly stated. These include both direct cost (printing/transporting notes, weeding out soiled notes, combating counterfeiting by several means including periodically introducing new series of currency notes and withdrawing existing ones, etc.) and indirect cost (loss of tax revenue, creation/prevalence of black money, etc.). Moreover, cash facilitates crime and above all cash is not 'swachcha' (imagine the germs that currency notes carry when we receive balance cash from a fishmonger, a vegetable vendor, an auto-riksha driver or even from an ATM). Moving towards cashless economy is the appropriate way to address these ills.

Content of the report

1.5 The Report presents a way forward for encouraging the cost effective electronic payments over cash and cheques. It focuses on the incentives and disincentives in the existing payment space and provides rational policy path for possible implementation by RBI and the government.

II. Background

Regulatory backdrop on payment transaction modes

2.1 Effective November, 2014, RBI mandated that banks provide free own Automated Teller Machine (ATM) usage (financial and non-financial combined) in India to a monthly minimum of 5 (restricting the earlier mandate of unlimited free). It has also revised limits of other banks' ATM usage from atleast 5 free to atleast 3 free a month in six metro centres[2] (see, references [2], [3] and [4]). A cap on customer charges of Rs 20 per ATM transaction has been fixed by RBI. With the current technology based payment infrastructure in place, RBI's move was directed to encourage moving away from cash by putting a cap on the free access.

2.2 Banks promptly reacted to RBI's new mandate on ATM. They brought in necessary yet expensive changes in their software, made required publicity of the changes by way of displays at ATM, etc. We focus on four major banks to see the general outcome of the regulation on ATM/Cheques and mobile/net based Immediate Payment Service (IMPS) and National Electronic Funds Transfer (NEFT), with respect to their structuring of the fees.

State Bank of India (SBI)

ATM: For a regular savings bank account, SBI has provided 5 ATM transactions free per month on any SBI group ATM. SBI has also indicated that since the bank allows 4 free transactions per month over the home branch counters, one way inter-changeability would be allowed between branch transaction and ATM transaction. This means a customer will be allowed 9 free transactions at the SBI group ATMs if he does not visit the branch at all during a month or 8 free ATM transactions if he visits the branch once and so on. SBI also provides 5 free ATM transactions over other banks' ATM subject to no more than 3 of these 5 ATM transactions are at six metro locations. The following charges have been set by SBI beyond the free limits:

i) Rs 5 (plus service tax) on own bank ATM for financial and non-financial transactions

ii) Rs 20 (plus service tax) on other banks' ATM for financial and Rs 8 (plus service tax) for non-financial transactions

Mobile/net debit modes: IMPS- minimum Rs 5 (plus service tax); NEFT- minimum Rs 2.50 (plus service tax)

Cheque: 20 cheque leaves free per year; thereafter Rs 3 per cheque leaf

[2] The six metro centres are Mumbai, New Delhi, Chennai, Kolkata, Bengaluru and Hyderabad

HDFC Bank, ICICI Bank and Axis Bank

ATM: For a regular savings bank account, HDFC/ICICI/Axis Bank has provided 5 ATM transactions free per month on own ATM. HDFC/ICICI/Axis Bank also provides 5 free ATM transactions over other banks' ATM subject to no more than 3 of these 5 ATM transactions are at six metro locations. The following charges have been set by HDFC/ICICI/Axis Bank beyond the free limits:
i) Rs 20 (plus service tax) on own bank ATM for financial and Rs 8.50 (plus service tax) for non-financial transactions
ii) Rs 20 (plus service tax) on other banks' ATM for financial and Rs 8.50 (plus service tax) for non-financial transactions

Mobile/net debit modes: IMPS- minimum Rs 5 (plus service tax); NEFT[3]- minimum Rs 2.50 (plus service tax)

Cheques: 20 to 25 cheque leaves free per quarter; additional chequebook @ Rs 2 per cheque leaf

Incentive and disincentive structures

2.3 The operation of debiting an account by means of cheque or cash withdrawal (over the counter or ATM) is expensive for banks as well as the economy. By contrast, electronic debit transactions are relatively inexpensive for banks and are beneficial for the country. Extant regulations providing a minimum of 8 to 10 free ATM transactions in a month for savings account customers and not mandating a minimum number of free electronic debit transactions promote cash economy. Similarly, practices/regulations by banks and RBI of providing certain minimum number of free cheques per month/quarter/year including unlimited free local cheque clearing service (and speed clearing service of outstation cheques having value no more than Rs one lakh) for savings account customers also favour paper economy over electronic debit transactions.

2.4 At present RBI's policies and bank practices are not oriented towards explicitly creating an ecosystem which gives the end users (customers) freedom of choice between payment modes; where there is no imbalance imposed by anomalous incentive/disincentive structures; where cash/paper transactions are not incentivised over cashless/paperless transactions; and where payments which are cheaper for banks to execute are priced favourably over payments which are expensive for banks to execute.

[3] Axis Bank does not charge on NEFT over their mobile App.

Transition in the payment preferences over the past three years

2.5 To provide a flavour of the overall payment transactions and its movements over the past three years, we consider monthly data for important payment variables during the period December 2012 through November 2015 (see, Appendix A). These variables have been chosen to primarily see the movements from Cash (ATM) and Cheques transactions to electronic transactions. Here, eCard means Credit, Debit and PPI card usage at POS/e-commerce.

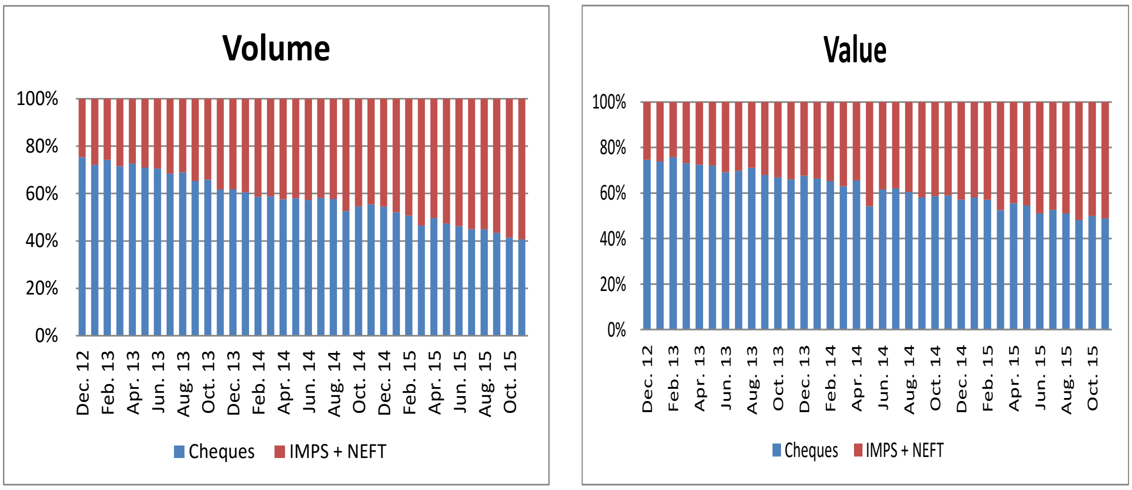

Chart 1: Percentage Cheques as compared to transactions through IMPS and NEFT

Observation: *Cheques have been consistently and rapidly decreasing in volume terms over IMPS and NEFT combine. However, in value terms the decrease is gradual and not quite rapid. The current level of cheques vis-à-vis IMPS and NEFT is 41% in volume and is 49% in value terms.*

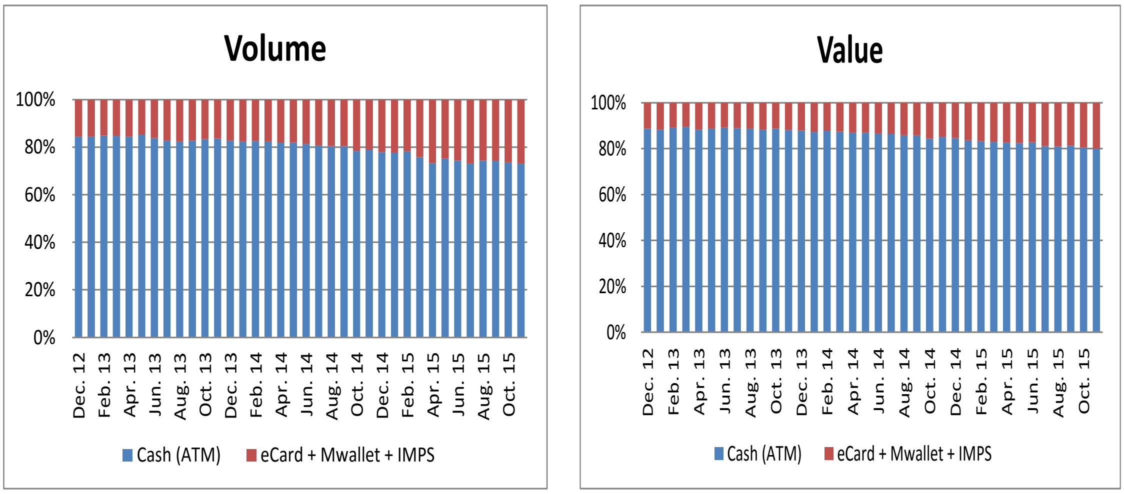

Chart 2: Percentage Cash (ATM) debits as compared to transactions through eCard, Mwallet and IMPS

Observation: *Cash debits through ATMs have decreased marginally in volume and value terms over eCard, Mwallet and IMPS combine. Notwithstanding the decline, Cash debits through ATMs is seen to be predominantly high (of the order of 80%) both in volume and value terms vis-à-vis eCard, Mwallet and IMPS taken together.*

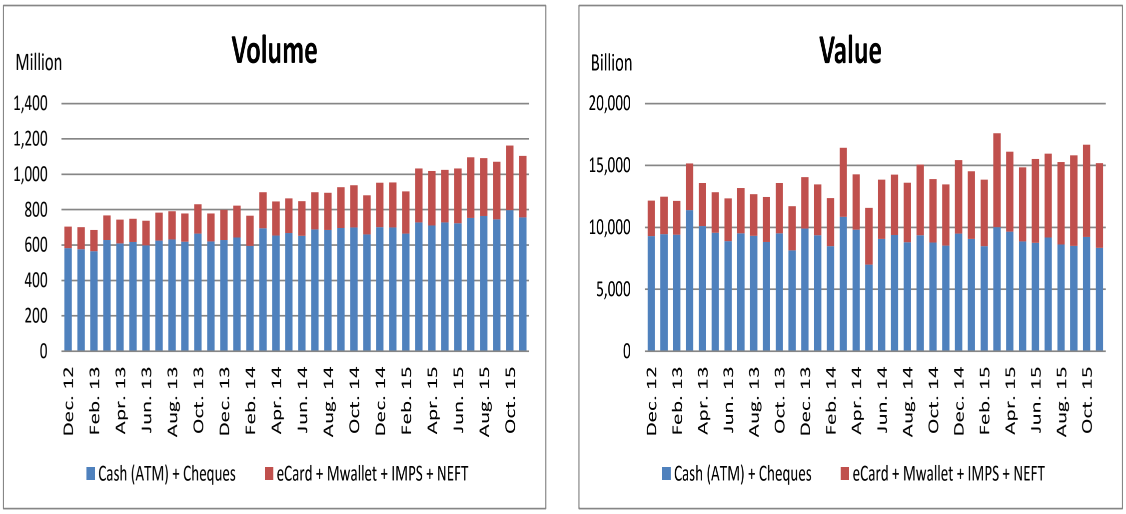

Chart 3: Cheques and Cash (ATM) debits as compared to transactions through eCard, Mwallet, IMPS and NEFT

Observation: *Cheques and Cash (ATM) debits in absolute terms have increased mildly in volume terms and have been stagnant at around Rs 9000 Billion in value terms. In contrast, debits through eCard, Mwallet, IMPS and NEFT combine have increased marginally in volume and value terms but contribute only about 30% in volume and 45% in value terms vis-à-vis Cheques and Cash (ATM).*

III. The ATM paradox

Incentivising other banks' ATM over ones's own

3.1 An experiment was carried out to seek an answer to a simple query from each of the four banks SBI, HDFC Bank, ICICI Bank and Axis Bank. The query, as below, seeks to know if banks would direct a customer, who has used own bank's ATM five times, to another banks' ATM for free access (which is obviously more expensive to the bank) or allow the customer free access to its own ATM (which will be economical for the bank).

The Query for Axis Bank (Similar were for the other three banks)

I have been trying to obtain a logical answer to a simple question, but could not get one even after interacting with few branch managers of your bank.
This is to request you to kindly address the following.

I have a normal savings bank account for which the bank has provided me with a debit card allowing 5 free ATM transactions per month on own bank's ATMs.
In this month, I have made 5 ATM transactions on Axis Bank ATMs. No other ATM transactions have been carried out on other banks' ATM.
Today, being 26th of the month, I want to withdraw Rs 2000 from an ATM. I have in front of me an Axis bank ATM, a SBI ATM and a HDFC bank ATM. All the three ATMs are operational.

Question 1: Keeping service quality and financial/customer education aspects in mind, what would be Axis Bank's advise to me regarding which ATM should I use to carry out my transaction and why (i.e., overall basis of your answer)?

Question 2: If I do the subsequent three transactions on Axis Bank ATM (making a total of 8) and none on other banks' ATM in the month, please reason as to why your bank would like to showcase that it would charge for the three transactions.

3.2 Responses were obtained from the banks. We list below the nature of such responses:

a. The Reserve Bank of India vide Circular RBI/2014-15/179 dated 14th Aug'14 decided to revise the existing directions relating to the use of Automated Teller Machines (ATMs) and charges on their use with an objective to foster the growth of non-cash payments. The guidelines advised that the Free ATM transactions at other bank ATMs at Metro locations had been reduced from 5 free per month to 3 free per month. It also advised Banks to rationalize the Free ATM transactions offered at own bank ATMs by allowing to charge over 5 free transactions per month (earlier most banks provided it unlimited free).

b. Accordingly the Bank in line with RBI advise changed the free ATM transaction limits as below:

5 Free per month at Own ATMs

3 Free per month at Other bank ATMs at Metro locations

c. In line with existing regulatory guidelines/advise, the free transactions offered across Own Bank and other Bank ATMs do not overlap and are not interchangeable. So in case the bank had decided to allow for additional free transactions on own bank ATMs (over the existing limit of 5), the customer would still be offered 3 additional free ATM transactions at other bank ATMs and would not be able to make a trade off, of these 3 free transactions available at other bank ATMs for free transactions at own bank ATM.

c'. As regards the query raised by you, we would like to clarify that basically, there are two independent limits available - five on our own ATMs and three on other bank ATMs. These work independently and not as substitutes to each other. As per RBI guidelines, we are required to allow customers three transactions on other Bank ATMs. Once the customer has exhausted the limit on our own ATMs, he could still use the three free transactions on other Bank but if he were to do the same transaction on our ATM, this would be chargeable.

The other responses are similar or more generic without any attempt to explicitly respond to the core points. SBI's response did not address the core issue of the query.

3.3 We now analyse the current practice on ATMs vis-à-vis a prudent alternative (or regulation). Referring to non-metro transactions, we have

(i) The current practice: Upto 5 own ATM transactions free and upto 5 cross ATM transactions free,

(ii) A prudent alternative: Upto 10 overall ATM transactions free subject to upto 5 cross ATM transactions free.

Illustrating the two practices under the RBI directed regulation

The current practice

Transactions at non-metro	Upto 5 own ATM transactions free and upto 5 cross ATM transactions free							
Total transactions	loss to customer				loss to bank			
	Transactions (option 1)				Transactions (option 2)			
	Own	Cross	Customer pays for	Bank pays other bank for	Own	Cross	Customer pays for	Bank pays other bank for
13	9	4	4	4	8	5	3	5
10	7	3	2	3	5	5	None	5
7	7	0	2	0	5	2	None	2

Note: A customer transacting 10 times is charged less than the one who transacts only 7 times (highlighted in red).

The prudent alternative

<table>
<tr><td>Transactions at non-metro</td><td colspan="4">Upto 10 overall ATM transactions free subject to upto 5 cross ATM transactions free</td></tr>
<tr><td rowspan="3">Total transactions</td><td colspan="4">Win-win for banks and customers</td></tr>
<tr><td colspan="4">Transactions</td></tr>
<tr><td>Own</td><td>Cross</td><td>Customer pays for</td><td>Bank pays other bank for</td></tr>
<tr><td>13</td><td>11</td><td>2</td><td>3</td><td>2</td></tr>
<tr><td>10</td><td>9</td><td>1</td><td>None</td><td>1</td></tr>
<tr><td>7</td><td>7</td><td>0</td><td>None</td><td>0</td></tr>
</table>

3.4 In case a bank adopts the current practice (which is true for the four major banks under study), the practice is counterproductive since it defeats the purpose of the regulation which is to reduce cost to banks and invoke least inconvenience to customers. As against the prudent alternative, the current practice increases not only cost to bank but also increases cost (and inconvenience) for customers. In other words, banks are interpreting RBI's regulation in a way that encourages/incentivises use of other bank's ATM more than one's own.

3.5 Just to elaborate further, consider SBI who clearly indicates that usage of other banks' ATM by their customers is more expensive for the bank rather than usage of own bank's ATM. Accordingly, SBI has priced their cash withdrawal charges at Rs 5 for own bank's ATM and Rs 20 for other banks' ATM. However, SBI has put in place a practice that incentivises other banks' ATM over its own bank's ATM (after the customer has used the bank's prescribed own ATM free limits) by providing free withdrawals at other banks' ATM while charging for own bank's ATM[4]. Such a move by SBI is not in the true spirit of the RBI guidelines and is not only detrimental to bank's own interest but to their customers too. Note that SBI incurs a cost of atleast Rs 15 on every use of other bank's ATM.

3.6 Furthermore, the current practice discriminates between users based on availability of cross ATMs. For example, in big cities having large ATM penetration, customers have a choice of using own bank's or other banks' ATM while in a smaller towns there may be only own bank's ATM within reasonable distance. This artificially creates discrimination since at locations with thin spread of other banks' ATM one gets only 5 transactions free while at other locations one gets 8 to 10 transactions free. This induces a clear discrimination against the rural and semi-urban poor.

3.7 Thus, the drafting of the present regulation and its interpretation by banks has neither helped banks nor the customers since customers with low volume of ATM usage are penalised.

[4] Refer to paragraph 2.2

Moreover, banks are incentivising use of other banks' ATM (which is more expensive for banks) and disincentivising use of own bank's ATM. Thus, keeping in view that RBI has mandated *Ensuring Reasonableness of Bank Charges*[5] (see, Box 1), either banks have to migrate to prudent pricing or RBI has to intervene in the interest of public policy and refine/reorient its directive.

> **Box 1: Fixing of service charges by banks**
>
> The practice of IBA fixing the benchmark service charges on behalf of member banks has been done away with and the decision to prescribe service charges are now taken by banks themselves with approval from their Board. While fixing service charges for various types of services like charges for cheque collection, etc., banks should ensure that the charges are reasonable and are not out of line with the average cost of providing these services. Banks should also ascertain that customers with low volume of activities are not penalised.

3.8 One possible way of addressing the loophole in the circular could be to reword the regulation as under:

"Banks are required to provide a minimum of 10 ATM transactions free provided

(i) No more than a minimum of 8 are at metro locations,

(ii) No more than a minimum of 5 are at other bank's ATM, and

(iii) No more than a minimum of 3 are at other bank's ATM at metro location.

Metro locations are m1, m2, m3, m4, m5, m6, etc.

Banks may decide on fees independently, for own and other bank's ATM usage, subject to a cap of Rs 20."

Fee charged on decline of ATM transactions

3.9 Banks are imposing a fee on decline of transaction at ATM or point of sale (POS) due to insufficient balance in the account. For illustration, we present charges for few banks.

> ICICI: Rs 25
> *(Decline of transaction at other bank's ATM or point of sale (POS) due to insufficient balance in the account)*
>
> SBI: Rs 20; HSBC: Rs 25
> *(Decline of transaction at ATMs due to insufficient balance in the account)*
>
> HDFC: Rs 25
> *(Decline of transaction at other bank's ATM or at a Merchant Outlet / online stores outside India due to insufficient balance in the account)*
>
> IndusInd: Rs 20
> *(Decline of transaction at other bank's ATM due to insufficient balance in the account)*

[5] Master Circular on Customer Service in Banks. RBI/2015-16/59 DBR No.Leg.BC.21/09.07.006/2015-16 July 1, 2015 https://rbidocs.rbi.org.in/rdocs/notification/PDFs/59FM04072F58B1DD44DFADD486B9B0A59E9D.PDF

3.10 Cheque/ECS returns involve third parties and create distrust in the payment mode. This should be discouraged and thus severe deterrents should be put in place in form of penalty. However, decline of an ATM transaction due to insufficient balances is nowhere at par with cheque/ECS return. It does not involve any third party. Moreover, National Payments Corporation of India (NPCI) does not consider it a transaction and hence no interchange is paid by the card issuing bank. Thus, to determine a fee for such a declined transaction, it could at most be considered a non-financial transaction, if not a void transaction.

3.11 In case banks are not able to set right this anomaly, the declined transaction due to insufficient balance in the account should be considered a non-financial transaction and thus should fall with-in the ATM fees regulations set by RBI.

IV. Incentivising electronic transactions over ATM-cash and cheques

Basic transactions

4.1 As discussed in the paper so far, RBI has prescribed mandates on service charges for ATM use. However, there exists no mandate by RBI on service charges for issuing cheque leaves and its subsequent use by the payer, other than a possible historic moral suasion. For local cheques and outstation cheques under speed clearing, RBI has prescribed free service to the payee, however there is no explicit mandate set by RBI on charges for the cheque leaves issued by a bank to its customer and its usage.

4.2 It is necessary for banks to provide certain minimum number of basic transactions for free in a Savings Bank account since banks have differentiated the rate of interest on the Time Component of the Savings Bank deposits and the Time Component of the Term deposits. This is the basis of identifying nature and quantum of 'basic transactions' to be provided free by banks.

4.3 This brings in two questions – first, which are these basic transactions; and second, what should be the free limits on such basic transactions?

4.4 The basic transactions should include both financial and non-financial transactions as bank incurs cost in providing both these services. Thus basic transactions include:
(i) physical cash deposit and withdrawal (financial transactions)
(ii) debiting/crediting account by means of cheque issue and deposit (financial transactions)
(iii) electronic (mobile/computer/net/ATM/branch based) inter-account transfer of funds (financial transactions)
(iv) ATM/branch visits for enquiries on existing account (non-financial transactions)
(v) electronic (mobile/computer/net based) enquires on existing account (non-financial transactions)

4.5 RBI has mandated minimum number of free basic services and has prescribed certain caps on service charges. These are primarily on ATM usage, NEFT usage, and Cheque clearing. RBI has, however, always encouraged banks to innovate so as to reduce the usage of expensive ATMs / Cheques / branch visits which, apart from being expensive, are cash / paper intensive and hence not beneficial for the economy.

Freedom of choice

4.6 With the above backdrop, four banks were asked to address few points through a mail (see, Appendix B). Responses from the banks were received and none of the banks negated the point

"Is it not possible to provide freedom of choice to customers by allowing them few free debit transactions each month and letting them pick economical/efficient/convenient mobile/computer/net based IMPS/NEFT alternatives over the cost-intensive/less-efficient ATM-cash/cheque ones?"

4.7 The current regulations on payment system in the country provide avenues for a minimum of 12 free debit transactions in form of ATM-cash and cheques (considering that banks provide usage of 2 free cheque debits per month for regular savings bank account). However, even given the present mandate on minimum free cash/paper based ATM and cheques facilities, (and until the current mandate is reoriented towards promoting digital transactions), banks can implement a fee structure favouring cashless/paperless electronic debits in the interest of their own long-term business orientation, their own customers and in the broader interest of the economy.

4.8 For instance, consider an alternative pricing by a proactive bank that gives its customers a choice of any 12 free basic debit transactions and imposes a fee thereafter (excluding debit transactions due to pull based POS/e-commerce transactions which run on a different business model).

4.9 To elaborate the above point, considering non-metros location, we provide three scenarios.

S1: Under present regulation and practice: Direct cost to customer per transaction for debiting his account, given a minimum of 12 free debit transactions, is:

for ATM a fee of Rs 20 beyond 10 free debits per month
for cheques a fee of Rs 3 beyond 2 free debits per month
for IMPS/NEFT (upto Rs 1 lakh) a fee of Rs 5

S2: Alternative within the present regulation: Direct cost to customer per transaction under an alternative system of 12 free debits as per customers' choice and under the existing regulation and practice:

for ATM a fee of Rs 20 beyond 10 free debits per month
for cheques a fee of Rs 3 beyond 2 free debits per month
for IMPS/NEFT (upto Rs 1 lakh) a fee of Rs 5 beyond overall 12 free debits per month

S3: Envisaged, requiring change in present regulation: Direct cost to customer per transaction under an envisaged system of 12 free debits as per customers' choice and under the new regulation and practice:

for ATM a fee of Rs 20 beyond 5 free debits per month
for cheques a fee of Rs 17 beyond 2 free debits per month
for IMPS/NEFT (upto Rs 1 lakh) a fee of Rs 5 beyond overall 12 free debits per month

4.10 Now, while considering 12 free basic debit transactions as per customers' choice, we consider a situation where a regular non-metro customer carries out 18 debit transactions locally in a month. These 18 transactions can be carried out in, say, following four ways:

(i) 11 ATM withdrawals (with atmost 5 in other bank's ATM), 3 cheques and 4 IMPS/NEFT transactions.

(ii) 8 ATM withdrawals (with atmost 5 in other bank's ATM), 6 cheques and 4 IMPS/NEFT transactions.

(iii) 4 ATM withdrawals, 1 cheque and 13 IMPS/NEFT transactions.

(iv) 1 ATM withdrawal, 3 cheques and 14 IMPS/NEFT transactions.

<u>Cost benefit Analysis under 12 free basic debit transactions at non-metros (An illustration)</u>

The average cost to banking system per transaction is
Own ATM Rs 15 and other bank's ATM Rs 18
Cheque Rs 17
IMPS/NEFT (for transactions amounts upto Rs 1 lakh) Rs 3

Situation	Number of Transactions				Transactions for which Customer pays			Cost (in Rs) to			
	Total	ATM (A)	Cheque (C)	IMPS/NEFT (N)	S1	S2	S3	Customer (S1)	Customer (S2)	Customer (S3)	Bank*
(i)	18	11	3	4	1A+1C+4N	1A+1C+4N	6A+1C	43	43	137	228
(ii)	18	8	6	4	4C+4N	4C+2N	3A+4C	32	22	128	234
(iii)	18	4	1	13	13N	6N	6N	65	30	30	116
(iv)	18	1	3	14	1C+14N	1C+5N	1C+5N	73	28	42	108

* Assuming ATM transactions at own bank's ATM

4.11 The illustration provided in point 4.10 above shows a clear incentive for banks to move away from cheques and ATM-cash to IMPS/NEFT and facilitating the economy to go digital. This is even possible pending RBI's reorientation of its regulation (see Box 2 for details) on the mandated free transactions on ATM/cheques.

4.12 A clearer and articulated action is required such that those who are using electronic mobile/computer/net based basic financial transactions instead of ATM-cash/cheques should not be subsidizing for those who have not been given the freedom of choice through bank's / RBI's incentive/disincentive structure that presently favours use of cash/paper in the economy.

Box 2: A comprehensive price model for debit transactions

In a month, let the number of debit transactions be as follows

x_1 ATM cash debit on other banks' ATM
x_2 ATM cash debit on own bank's ATM
x_3 cheque debit
x_4 IMPS/NEFT done online/mobile/ATM
x_5 IMPS/NEFT done over branch counter
x_6 cash withdrawal at branch counter

A comprehensive approach would be for the banking industry to provide *a minimum* of 12 free (overall) customer initiated debit transactions in a month and charge beyond that, subject to banks given the freedom to charge a fee on

(i) x_1-3 (>0) debit transactions
(ii) x_1+x_2-5 (>0) debit transactions
(iii) x_3-2 (>0) debit transactions
(iv) x_5+x_6-5 (>0) debit transactions

Beyond free limits, fee for every ATM cash debit has a cap of Rs 20; fee for every cheque used has a cap of Rs 17; fee for every IMPS/NEFT (upto Rs 1 lakh) has a cap of Rs 5.
Fee structure for non-financial transactions should be arrived at independently.

(Note that BSBDA is outside the purview of this model since BSBDA provides for a minimum of 4 free debit transactions unless a bank wants to provide more of such free debit transactions)

Due to diverse infrastructural facilities across the country and issues related to net/mobile connectivity and availability of branch facilities, the policies set for rural / semi urban regions could be different from those set for urban / metro regions. For example in semi-urban / rural locations, (iv) could be replaced by (iv') x_5+x_6-8 (>0) debit transactions, etc.

The discovery of the figure of minimum 12 free debit transactions and related figures should be based on a more holistic and informed analysis by RBI.

Rationale for incentivising electronic transactions and banks' concern

4.13 There is a cost to bank to provide debit transaction facility. In the interest of the banking system and the depositors, such a facility should not ideally be provided free. Accordingly, revenue is generated for such transactions in form of a direct fee or indirect fee. Indirect fee is attributed through maintenance of minimum balance and low interest paid on savings account vis-à-vis base-rate / term-deposit rates of bank. Banks on an average maintain more than 92% of their savings account deposits under Time component of the Demand and Time liabilities. This indirect fee/revenue provides for the minimum free debit transactions.

4.14 The present customer behaviour suggests that those who are carrying out IMPS/NEFT debit transactions (for a fee) are doing so independent of the free ATM/cheque facilities available. By not using or rarely using ATM-cash/cheque facility that are expensive for banks, and paying for every IMPS/NEFT debit transactions which are cheaper for banks to offer, such customers of bank that prefer electronic transactions indirectly subsidise for those customers who use the cash/paper based facilities for free.

4.15 Banks' major interest could be that when (in absence of any RBI mandate on parity with ATM/cheques) they can earn revenue on such electronic debits, why they should let it go. On a more comprehensive take, banks have to consider the overall revenue loss of the country due to the current system being geared up to encourage the use of the more expensive and less efficient cash/paper based debit transactions. Moreover, the net revenue for banks in the proposed free/fee structure will be higher even when accounting for the underlying costs incurred by banks for carrying out these IMPS/NEFT transactions.

4.16 On the other hand there are another set of people who are more comfortable/habituated in favouring cash/paper based transactions. After having created the infrastructure for cashless/paperless transactions (through their net banking facilities and innovative mobile banking Apps), banks have not done enough to boost migration of this very group of people from cash/paper based transactions to cashless/paperless transactions. For them to embrace efficient transaction modes, among other things, appropriate financial education is to be imparted and proper fee structure needs to be imposed.

4.17 The future business and investment decisions should be guided by the change in the customer profile, customer preference, customer ease, country benefit, and banks own benefit. Regulator should accordingly provide future guidance.

4.18 Though RBI had prepared an excellent discussion paper on disincentivising cheques (see, reference [1]), it simply should not shelve it just because there is public outcry. RBI needs to keep discussing and educating the public and take controlled steps in the interest of the depositors, banks and the country. For example, just like in the interest of the banking policy RBI had pitched-in to migrate customers from branches to ATM through a regulatory intervention, on similar lines RBI has to again pitch-in in the interest of the banking policy and the economy of the country to migrate customers from cash/cheque to mobile/computer/net based IMPS/NEFT through a regulatory intervention in a rationale way. Such balanced incentives could be used as a behavioural economics tool to drive more people towards digital payment modes and in turn, help expand the penetration of cashless/paperless transactions.

4.19 Now that a majority of Indians have or can have a bank account and a mobile phone, it becomes prudent to migrate to measures that incentivise cashless/paperless transactions. Further, with the digital payments infrastructure already in place, it can give boost to payments made digitally provided the same convenience and acceptability as that for cash can be attained by policy reorientation.

4.20 There is a high cost of cash to the economy that is not explicitly stated. These include both direct cost (printing/transporting notes, weeding out soiled notes, combating counterfeiting by several means including periodically introducing new series of currency notes and withdrawing existing ones, etc.) and indirect cost (loss of tax revenue, creation/prevalence of black money, etc.). Moreover, cash facilitates crime and above all cash is not 'swachcha' (imagine the germs that currency notes carry when we receive balance cash from a fishmonger, a vegetable vendor, an auto-riksha driver or even from an ATM). Moving towards cashless economy is the appropriate way to address these ills. People should make cashless transactions a habit and RBI should impart this important message of financial/depositor education through Depositor Education and Awareness Fund (DEAF).

Unified Payments Interface

4.21 NPCI has envisaged Unified Payments Interface (UPI), which is a user friendly mobile App for unified funds transfer (between two bank accounts) using mobile phones (see, reference [5]). Created by NPCI, the UPI-App can currently be provided only by a bank to their own customers and to other banks' customers. The App has been developed incorporating universality, seamlessness, privacy, security, convenience and speed. It is expected to be a game changer in the electronic payment system of the country. As the UPI-App evolves over time, it has the potential to replace card payments.

4.22 With UPI-App providing easy means of quick transfer of funds between two entities using IMPS, it carries the potential of replacing the expensive cash exchanging hands or cheques exchanging hands or usage of debit/pre-paid cards at POS and for e-commerce. In addition to the standard push (payer initiated) feature, UPI-App has incorporated the pull (payee initiated) features making it attractive for merchant transactions.

4.23 The current UPI structure necessitates that a bank (bank X, say) will identify itself with the UPI-App and all communications of the UPI-App installed on a mobile phone will get routed through this bank even if the App-user is a non-customer of Bank X and is doing transactions between two banks, both different from bank X. It may be worthwhile for NPCI to work towards providing the UPI-App to the customers directly. NPCI is a national asset, and an institute of national importance. It can build the capacity (if not there) to make a product that can provide direct interface to customers and migrate them from the traditional modes of payments to electronic payment platforms in India. With a clear revenue model for banks (independent of their earlier investments made in various cashless/paperless payment initiatives), it is proposed that

(i) UPI-App should be supplied *additionally* by NPCI directly to end users (like National Unified USSD Platform (NUUP)).

(ii) UPI-App should be backed by RBI and regulated, if required.

(iii) NPCI should act as a switch to communicate messages directly between the two banks, the payer and the payee.

(iv) UPI-App communicates directly 'between NPCI and Payer' and 'between NPCI and Payee' and transfer funds through IMPS.

(v) A possible revenue model for person to person transactions could be

- Pull transaction: pull customer pays Rs 3 to payee-bank of which Rs 1 is interchange earned by payer-bank.
- Push transaction: push customer pays Rs 3 to payer-bank of which Rs 1 is interchange earned by payee-bank.
- The revenue model for merchant transactions could be different.
- NPCI provides the service free for the initial one year and thereafter can fix appropriate revenue generating fee from payer- and payee-banks. RBI and the government should sponsor NPCI for making this endeavour robust.

(vi) UPI-App should be enabled with a provision to withdraw cash from ATMs without the requirement of a debit card.

4.24 The primary advantage of the proposed model would be to reduce one to two layers of banks involved in transactions where the UPI-App provider bank (Payment Service Provider) is not the payer or/and payee bank. With centrality of operations with NPCI, it would also make features more flexible with ease to innovate and improve. For example, to withdraw cash from an ATM using the UPI-App, one has to execute cash request by indicating the debit bank and amount. This would generate a one-time-password (OTP). The person walks into any ATM and opts for UPI-withdrawal. The ATM would then ask for mobile number, amount, OTP (and possibly the ATM PIN issued by the payer-bank). On a successful authentication, cash is dispensed.

4.25 With volumes increasing, the per transaction cost to run the system would decrease significantly and the business model could be made self-sufficient through an appropriate revenue sharing model.

The government's contribution for the migration path

4.26 To incentivise electronic transfer of funds over cash and cheques, the government should consider service tax break for few years on the fees imposed by banks for electronic debits using front-ends like mobile, computers, etc.

4.27 It is important to assert here that though it may superficially appear to be a revenue loss, but the government will get compensated by the economic benefits of less cash and minimal use of cheques.

V. Conclusion and recomendations

Conclusion

5.1 The vision of RBI to migrate customers from branches to own-bank ATM and further to other-bank ATM to exploit the infrastructure put in place is commendable. RBI achieved this by appropriately pricing the facilities put in place. However, with the developments since then – the government's financial inclusion initiative making a large section of population banked, mobile and IT penetration into the country including in the hinterland creating ease of making electronic financial transaction and carrying out e-commerce – it is time that RBI reorients its current regulations that continue to promote paper/cash based transactions, that are expensive for the economy and do not provide directions/incentives to customers to go paperless/cashless. In fact, the present regulations disincentivise smarter and cheaper cashless/paperless modes like mobile/computer based IMPS/NEFT and equivalents. Banks on their own have not attempted to take the required initiatives to correct their practice. Though such a move by smart banks can only reduce bank's cost and provide potential gains to their customers, there is a catch which holds them back. Banks may be reluctant to move their customers to the electronic debit modes because of the investments made by them in the ATM network infrastructure and the Cheque system put in place.

5.2 RBI regulation mandates that in a month the first 3 ATM debits (of upto Rs 10,000) from any ATM in India are free. On the other hand, RBI also mandates that in a month, for the first 3 NEFT debits (of upto Rs 10,000), a bank can impose a maximum fee of Rs 2.50 (plus service tax). In general, for the first 3 debit transactions on the two modes of debits, banks have fixed the customer fees at the cap set by RBI. A clearer and articulated action is required such that those who are using electronic mobile/computer/net based debit transactions instead of ATM-cash/cheques should not be subsidizing for those who have not been given the freedom of choice through bank's / RBI's incentive/disincentive structure that presently favours use of cash/paper in the economy.

5.3 There is a high cost of cash to the economy that is not explicitly stated. These include both direct cost (printing/transporting notes, weeding out soiled notes, combating counterfeiting by several means including periodically introducing new series of currency notes and withdrawing existing ones, etc.) and indirect cost (loss of tax revenue, creation/prevalence of black money, etc.). Moreover, cash facilitates crime and above all cash is not 'swachcha' (imagine the germs that currency notes carry when we receive balance cash from a fishmonger, a vegetable vendor, an auto-riksha driver or even from an ATM). Moving towards cashless economy is the appropriate way to address these ills.

5.4 Other than aspects relating to safeguarding one's tax evasion wishes and the perception of exposure to possible fraudulent electronic transactions (which would fade over time), it is important to project that electronic transactions, if not better, are at par with cash transactions. Thus any scope of potential disincentives of the use of non-cash over cash transactions or/and incentives of use of cash over non-cash transactions should be recognised beforehand. There is a requirement of awareness building through a concentrated education program to educate the people of India on the country's benefits of cashless/paperless transactions.

5.5 By reviewing the present incentive and disincentive structure, RBI should join hands with the government in working towards policy measures which would incentivise use of mobile/computer/net/card/IMPS/NEFT based transactions in day to day cashless/paperless payment transactions. Balanced incentives could be used as a behavioural economics tool to drive more people towards digital payment modes and in turn, help expand the penetration of cashless/paperless transactions.

Recommendations

(A) Without disturbing the present setup significantly and to bring in a balanced incentive/disincentive fee structure, RBI should mandate banks to provide a minimum of 12 free (overall) customer initiated debit transactions in a month and charge beyond that, subject to banks given the freedom to charge a fee on

(i) ATM transactions on other banks' ATM in excess of 5 of which no more than 3 are at metro locations

(ii) ATM transactions in excess of 10

(iii) cheque debits in excess of 2

Beyond free limits, fee for every ATM transaction has a cap of Rs 20; fee for every cheque used has a cap of Rs 3; fee for every IMPS/NEFT (upto Rs 1 lakh) has a cap of Rs 5.

(B) At some point of time, RBI should consider mandating banks to provide a minimum of 12 free (overall) customer initiated debit transactions in a month and charge beyond that, subject to banks given the freedom to charge a fee on

(i) ATM cash debit on other banks' ATM in excess of 3

(ii) ATM cash debit in excess of 5

(iii) cheque debits in excess of 2

Beyond free limits, fee for every ATM cash debit has a cap of Rs 20; fee for every cheque used has a cap of Rs 17; fee for every IMPS/NEFT (upto Rs 1 lakh) has a cap of Rs 5.

Fee structure for non-financial transactions should be arrived at independently.

Due to diverse infrastructural facilities across the country and issues related to net/mobile connectivity and availability of branch facilities, the policies set for rural / semi urban regions could be different from those set for urban / metro regions. For example in semi-urban / rural locations, (ii) could be replaced by (ii') ATM cash debit in excess of 8, etc.

(C) NPCI should strive towards moulding the UPI-App such that

(i) UPI-App is supplied *additionally* by NPCI directly to end users (like NUUP).

(ii) UPI-App is backed by RBI and regulated, if required.

(iii) NPCI acts as a switch to communicate messages directly between the two banks, the payer and the payee.

(iv) UPI-App communicates directly 'between NPCI and Payer' and 'between NPCI and Payee' and transfer funds through IMPS.

(v) A possible revenue model for person to person transactions is

- Pull transaction: pull customer pays Rs 3 to payee-bank of which Rs 1 is interchange earned by payer-bank.
- Push transaction: push customer pays Rs 3 to payer-bank of which Rs 1 is interchange earned by payee-bank.
- The revenue model for merchant transactions could be different.
- NPCI provides the service free for the initial one year and thereafter can fix appropriate revenue generating fee from payer- and payee-banks.

(vi) UPI-App is enabled with a provision to withdraw cash from ATMs without the requirement of a debit card.

(D) The government should consider service tax break for few years on the fees imposed by banks for electronic debits using front-ends like mobile, computers, etc. which moves people away from cash and cheques.

(E) Till RBI migrates to recommendation (A), as an interim measure, one possible way of addressing the lacuna in RBI circular on ATM could be to reword the regulation as under:

“Banks are required to provide a minimum of 10 ATM transactions free provided

(i) No more than a minimum of 8 are at metro locations,

(ii) No more than a minimum of 5 are at other bank’s ATM, and

(iii) No more than a minimum of 3 are at other bank’s ATM at metro location.

Metro locations are m1, m2, m3, m4, m5, m6, etc.

Banks may decide on fees independently, for own and other bank’s ATM usage, subject to a cap of Rs 20.”

The declined transaction due to insufficient balance in the account should be considered a non-financial transaction and should fall with-in the ATM fees regulations.

References

[1] A Discussion Paper on Disincentivising Issuance and Usage of Cheques. RBI report. January 31, 2013.
https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/DPDC300113_F.pdf

[2] Usage of ATMs – Rationalisation of number of free transactions.
RBI/2014-15/179 DPSS.CO.PD.No. 316/02.10.002/2014-2015 dated August 14, 2014.
http://www.rbi.org.in/scripts/NotificationUser.aspx?Id=9170&Mode=0

[3] Das, Ashish (2014). The Art of Living for ATMs in India.
IIT Bombay Technical Report dated September 15, 2014.
http://dspace.library.iitb.ac.in/jspui/handle/100/14421

[4] Usage of ATMs –Rationalisation of number of free transactions – Clarifications.
RBI/2014-15/260 DPSS.CO.PD.No.659/02.10.002/2014-2015 dated October 10, 2014.
https://rbi.org.in/Scripts/NotificationUser.aspx?Id=9276&Mode=0

[5] UNIFIED PAYMENT INTERFACE API and Technology Specifications. Specifications – Version 1.1, October 2015, NPCI.
http://www.npci.org.in/documents/Unified-Payment-Interface-API-Technology-Specifications-v11.pdf

Appendix A: Payment transaction volumes and values

Table 1: Payment Transaction Volumes

Volume (Million)	Cheques	NEFT	IMPS	Credit Card Usage at ATMs	Credit Card Usage at POS	Debit Card Usage at ATMs	Debit Card Usage at POS	Mwallet	PPI Cards	Cash (ATM)	eCard + Mwallet + IMPS	IMPS + NEFT	Cash (ATM) + Cheques	eCard + Mwallet + IMPS + NEFT
Dec. 12	108.48	35.54	0.11	0.22	36.10	473.75	43.39	4.17	2.96	473.97	86.73	35.65	582.45	122.27
Jan. 13	99.17	38.36	0.15	0.21	37.00	476.64	43.53	4.66	1.98	476.85	87.32	38.51	576.02	125.68
Feb. 13	110.92	38.29	0.22	0.20	32.83	454.31	41.03	5.41	1.89	454.51	81.38	38.51	565.43	119.67
Mar. 13	118.75	47.09	0.30	0.23	35.62	508.85	45.67	6.60	3.71	509.08	91.90	47.39	627.83	138.99
Apr. 13	108.84	40.65	0.27	0.23	37.56	501.07	45.66	6.63	2.91	501.30	93.03	40.92	610.14	133.68
May. 13	103.38	42.02	0.38	0.23	31.21	514.01	47.25	7.01	3.45	514.24	89.30	42.40	617.62	131.32
Jun. 13	104.41	43.19	0.47	0.22	36.80	493.93	47.91	7.01	3.56	494.15	95.75	43.66	598.56	138.94
Jul. 13	110.61	50.42	0.65	0.23	42.36	514.36	52.45	7.94	4.41	514.59	107.81	51.07	625.20	158.23
Aug. 13	107.22	47.62	0.79	0.24	41.41	523.78	55.49	8.68	5.41	524.02	111.78	48.41	631.24	159.40
Sep. 13	98.08	51.25	1.02	0.23	40.04	520.70	53.49	8.74	4.90	520.93	108.19	52.27	619.01	159.44
Oct. 13	112.08	56.91	1.22	0.25	43.28	551.66	54.94	8.14	2.17	551.91	109.75	58.13	663.99	166.66
Nov. 13	86.84	52.65	1.38	0.24	41.84	533.39	51.90	7.46	2.15	533.63	104.73	54.03	620.47	157.38
Dec. 13	100.25	60.36	1.93	0.27	45.64	527.92	52.29	8.58	2.16	528.19	110.60	62.29	628.44	170.96
Jan. 14	104.14	65.91	2.03	0.27	45.62	538.39	53.83	10.83	2.15	538.66	114.46	67.94	642.80	180.37
Feb. 14	93.89	64.15	2.23	0.25	40.81	501.53	48.90	11.49	2.08	501.78	105.51	66.38	595.67	169.66
Mar. 14	122.58	82.83	3.00	0.30	46.11	571.50	56.98	13.45	2.45	571.80	121.99	85.83	694.38	204.82
Apr. 14	99.92	70.62	3.11	0.30	46.44	554.03	56.27	13.07	2.61	554.33	121.50	73.73	654.25	192.12
May. 14	99.92	69.11	3.30	0.31	47.24	568.13	59.22	13.57	2.64	568.44	125.97	72.41	668.36	195.08
Jun. 14	95.84	67.86	3.71	0.31	48.26	555.81	59.56	13.71	2.82	556.12	128.06	71.57	651.96	195.92
Jul. 14	105.18	71.67	4.26	0.32	50.92	582.96	64.64	15.52	3.15	583.28	138.49	75.93	688.46	210.16
Aug. 14	97.84	66.98	4.80	0.32	50.53	587.33	67.62	16.58	3.38	587.65	142.91	71.78	685.49	209.89
Sep. 14	103.77	88.00	5.80	0.34	50.17	591.66	64.90	18.77	4.02	592.00	143.66	93.80	695.77	231.66
Oct. 14	95.95	73.29	6.51	0.35	54.58	602.70	73.69	21.39	9.65	603.05	165.82	79.80	699.00	239.11
Nov. 14	94.65	69.12	7.09	0.39	48.27	565.62	70.10	21.38	4.95	566.01	151.79	76.21	660.66	220.91
Dec. 14	109.57	83.49	8.38	0.44	56.09	591.06	73.62	23.19	5.74	591.50	167.02	91.87	701.07	250.51
Jan. 15	97.41	80.22	9.33	0.41	56.17	602.18	74.44	27.62	5.82	602.59	173.38	89.55	700.00	253.60
Feb. 15	93.66	81.19	10.08	0.37	49.55	570.39	67.90	24.08	6.19	570.76	157.80	91.27	664.42	238.99
Mar. 15	102.80	106.00	12.02	0.44	56.91	624.21	76.11	46.11	7.94	624.65	199.09	118.02	727.45	305.09
Apr. 15	94.37	83.53	12.37	0.43	57.31	615.76	80.35	67.05	7.26	616.19	224.34	95.90	710.56	307.87
May. 15	91.13	88.13	13.32	0.47	60.13	636.63	88.97	39.95	6.93	637.10	209.30	101.45	728.23	297.43
Jun. 15	90.30	91.22	13.82	0.47	60.42	632.77	89.13	47.31	8.06	633.24	218.74	105.04	723.54	309.96
Jul. 15	96.94	103.11	15.60	0.46	64.79	655.17	94.97	53.60	10.89	655.63	239.85	118.71	752.57	342.96
Aug. 15	91.39	95.94	16.65	0.47	65.52	672.45	96.74	42.84	10.07	672.92	231.82	112.59	764.31	327.76
Sep. 15	89.01	98.54	17.72	0.48	62.42	655.22	90.02	48.94	9.01	655.70	228.11	116.26	744.71	326.65
Oct. 15	94.78	114.60	19.42	0.52	68.91	701.55	100.24	49.58	12.20	702.07	250.35	134.02	796.85	364.95
Nov. 15	81.37	99.82	19.08	0.49	66.06	675.09	99.90	49.83	12.78	675.58	247.65	118.90	756.95	347.47

eCard: Credit, Debit and PPI card usage at POS/e-commerce

Source: RBI Bulletin

Table 2: Payment Transaction Values

Value (Billion)	Cheques	NEFT	IMPS	Credit Card Usage at ATMs	Credit Card Usage at POS	Debit Card Usage at ATMs	Debit Card Usage at POS	Mwallet	PPI Cards	Cash (ATM)	eCard + Mwallet + IMPS	IMPS + NEFT	Cash (ATM) + Cheques	eCard + Mwallet + IMPS + NEFT
Dec. 12	7,836.75	2,667.68	0.39	1.24	111.32	1,461.25	69.09	1.52	4.58	1,462.49	186.90	2,668.07	9,299.24	2,854.58
Jan. 13	7,960.32	2,814.88	0.63	1.22	113.59	1,491.84	80.06	1.31	1.93	1,493.06	197.52	2,815.51	9,453.38	3,012.40
Feb. 13	8,030.12	2,560.35	0.87	1.17	101.05	1,367.67	61.49	1.47	1.88	1,368.84	166.76	2,561.22	9,398.96	2,727.11
Mar. 13	9,824.55	3,601.66	1.25	1.49	111.22	1,556.15	66.94	1.75	2.10	1,557.64	183.26	3,602.91	11,382.19	3,784.92
Apr. 13	8,547.90	3,258.26	1.44	1.33	124.18	1,563.87	76.26	1.76	1.90	1,565.20	205.54	3,259.70	10,113.10	3,463.80
May. 13	7,926.18	3,067.98	1.94	1.34	123.81	1,636.13	76.91	1.98	2.10	1,637.47	206.74	3,069.92	9,563.65	3,274.72
Jun. 13	7,310.28	3,253.07	2.30	1.27	113.76	1,574.17	70.89	1.86	2.05	1,575.44	190.86	3,255.37	8,885.72	3,443.93
Jul. 13	7,946.28	3,444.39	3.80	1.36	110.39	1,577.34	77.22	2.20	1.96	1,578.70	195.57	3,448.19	9,524.98	3,639.96
Aug. 13	7,754.26	3,150.34	4.71	1.39	107.48	1,568.79	80.18	2.36	2.02	1,570.18	196.75	3,155.05	9,324.44	3,347.09
Sep. 13	7,276.11	3,434.36	5.53	1.33	119.23	1,543.18	73.87	2.33	2.06	1,544.51	203.02	3,439.89	8,820.62	3,637.38
Oct. 13	7,794.27	3,860.15	7.32	1.44	118.81	1,713.08	86.86	2.12	2.43	1,714.52	217.54	3,867.47	9,508.79	4,077.69
Nov. 13	6,485.53	3,332.64	8.82	1.34	126.55	1,655.03	84.12	1.93	2.57	1,656.37	223.99	3,341.46	8,141.90	3,556.63
Dec. 13	8,196.93	3,929.28	11.70	1.51	135.07	1,692.47	81.94	2.48	2.54	1,693.98	233.73	3,940.98	9,890.91	4,163.01
Jan. 14	7,670.84	3,871.54	13.20	1.51	141.62	1,678.67	84.98	2.31	2.57	1,680.18	244.68	3,884.74	9,351.02	4,116.22
Feb. 14	6,901.06	3,656.05	14.56	1.40	126.93	1,575.79	74.35	2.73	2.70	1,577.19	221.27	3,670.61	8,478.25	3,877.32
Mar. 14	9,058.68	5,312.23	20.50	1.66	145.49	1,796.10	85.77	3.41	3.25	1,797.76	258.42	5,332.73	10,856.44	5,570.65
Apr. 14	8,065.63	4,219.56	21.56	1.63	145.77	1,743.46	86.85	4.03	3.75	1,745.09	261.96	4,241.12	9,810.72	4,481.52
May. 14	5,110.25	4,307.38	24.16	1.67	150.46	1,873.75	95.82	4.37	4.11	1,875.42	278.92	4,331.54	6,985.67	4,586.30
Jun. 14	7,266.08	4,509.52	26.10	1.67	148.61	1,792.85	92.73	4.66	4.01	1,794.52	276.11	4,535.62	9,060.60	4,785.63
Jul. 14	7,528.59	4,577.83	30.19	1.72	152.09	1,854.87	99.03	5.52	5.46	1,856.59	292.29	4,608.02	9,385.18	4,870.12
Aug. 14	6,959.44	4,520.40	35.20	1.73	150.78	1,825.18	104.69	4.27	6.49	1,826.91	301.43	4,555.60	8,786.35	4,821.83
Sep. 14	7,505.49	5,393.36	42.95	1.84	151.82	1,854.65	97.33	6.74	8.11	1,856.49	306.95	5,436.31	9,361.98	5,700.31
Oct. 14	6,843.65	4,781.50	48.99	1.93	171.20	1,923.01	119.56	7.01	9.21	1,924.94	355.97	4,830.49	8,768.59	5,137.47
Nov. 14	6,696.45	4,616.75	52.59	2.32	149.50	1,831.38	103.59	6.97	9.68	1,833.70	322.33	4,669.34	8,530.15	4,939.08
Dec. 14	7,488.29	5,573.36	60.36	2.51	171.87	1,999.78	111.01	8.28	12.01	2,002.29	363.53	5,633.72	9,490.58	5,936.89
Jan. 15	7,135.01	5,084.73	69.73	2.14	173.52	1,924.17	112.89	8.92	12.59	1,926.31	377.65	5,154.46	9,061.32	5,462.38
Feb. 15	6,808.13	5,046.41	75.90	1.96	154.55	1,668.06	81.64	8.76	13.64	1,670.02	334.49	5,122.31	8,478.15	5,380.90
Mar. 15	8,027.11	7,173.02	94.15	2.34	178.99	1,987.48	108.28	10.82	16.24	1,989.82	408.48	7,267.17	10,016.93	7,581.50
Apr. 15	7,650.61	6,043.58	100.89	2.29	179.22	2,000.73	114.85	11.96	13.64	2,003.02	420.56	6,144.47	9,653.63	6,464.14
May. 15	6,767.62	5,536.03	106.75	2.33	188.66	2,090.73	123.25	11.76	14.31	2,093.06	444.73	5,642.78	8,860.68	5,980.76
Jun. 15	6,693.75	6,324.58	103.24	2.18	174.71	2,066.12	122.23	12.68	16.96	2,068.30	429.82	6,427.82	8,762.05	6,754.40
Jul. 15	7,098.26	6,289.37	112.17	2.38	196.09	2,077.85	140.07	14.29	21.64	2,080.23	484.26	6,401.54	9,178.49	6,773.63
Aug. 15	6,545.05	6,153.38	119.06	2.44	199.13	2,074.42	135.56	13.35	23.46	2,076.86	490.56	6,272.44	8,621.91	6,643.94
Sep. 15	6,476.06	6,860.21	120.71	2.47	190.22	2,021.24	116.79	17.96	20.06	2,023.71	465.74	6,980.92	8,499.77	7,325.95
Oct. 15	7,034.90	6,906.88	137.04	2.70	216.35	2,188.66	140.06	15.45	20.50	2,191.36	529.40	7,043.92	9,226.26	7,436.28
Nov. 15	6,178.45	6,325.87	137.67	2.61	207.72	2,152.82	148.90	19.31	21.80	2,155.43	535.40	6,463.54	8,333.88	6,861.27

eCard: Credit, Debit and PPI card usage at POS/e-commerce

Source: RBI Bulletin

Appendix B: Bank's viewpoint sought in October 2015

The Chairman and Managing Director / Chief Executive Officer
State Bank of India, HDFC Bank, ICICI Bank, Axis Bank

(Copy to Governor, RBI and Secretary, DFS, Ministry of Finance)

October 29, 2015

Subject: *Are banks incentivising inefficiency by promoting cash/paper economy?*

Madam/Dear Sir:

This is to request you to kindly address the six points as below:

1. Why is your bank incentivising expensive cash/paper based transactions in the economy by providing 8 to 10 free ATM-cash debits and free cheque facilities and not extending similar incentives for cheaper non-cash/paperless platforms like the mobile/PC based IMPS/NEFT debits?

2. While having a standard regular savings bank account, if you or I (or a young depositor, i.e. a common man) want to migrate to paperless mobile/PC based IMPS/NEFT payment modes in lieu of the paper based payment modes, why is your bank holding us back by creating an imbalanced incentive/disincentive structure?

3. There is a cost for developing and maintaining technology for the payment systems. Someone has to pay for the same. What is the rationale behind artificially promoting the more expensive payment modes like cheque and ATM-cash for debit transactions by providing incentives, in lieu of efficient and economical mobile/PC based IMPS/NEFT modes?

4. What is holding the system back in providing equivalent incentives for paperless/cashless payment modes in lieu of the incentives provided in the paper/cash payment modes? Is it that (a) your bank's inertia in changing the present business/investment model surrounding the ATM/cheque network, holding back your customers to migrate to the cheaper electronic payment modes, or (b) the present regulation (providing non-uniform incentives) is enticing bank customers to opt for free, though less-efficient, ATM/cheque transactions?

5. Why is your bank not enterprising enough to bring in software changes and more meaningful parity on fee structure pertaining to the IMPS/NEFT debit transactions done over mobile/PC, though it was efficient enough to make the relatively much complex software changes pertaining to fee imposition on cash/cheque based debit transactions at ATMs/branches.

6. Is it not possible to provide freedom of choice to customers by allowing them few free debit transactions each month and letting them pick economical/efficient mobile/PC based IMPS/NEFT alternatives over the cost-intensive/less-efficient ATM/cheque ones?

With regards,

Ashish Das